

AES PUERTO RICO
Coal-Fired Power Plant & Coal Combustion Residuals

ISSUE

- On July 4, 2017, the Commonwealth of Puerto Rico (PR) banned under Law 40, the deposit and disposal of *coal ash, fly ash or coal combustion residuals* (“CCR”) generated by AES Puerto Rico, L.P. (“AES”) at its coal-fired power plant (“Facility” or “Power Plant”) in Guayama, even in lined landfills, as allowed by EPA regulation. Litigation ensued, and in January 2018, a PR Court of Appeals ruled that Agremax (defined by AES as an aggregate of the mixture of bottom ash, fly ash, and water) may be disposed and beneficially used in PR landfills. As such, Agremax may be disposed at Peñuelas Valley Landfill and Ecosystems Landfill in Peñuelas, and El Coqui Landfill in Humacao, which we understand are the only lined landfills that can receive this material. A February 2018 appeal to the PR Supreme Court was denied.
- Region 2 remains concerned about the stockpiling of Agremax generated and accumulated at the Facility, and its subsequent proper management and disposal.

STATUS

Power Plant Operation and Disposal of Agremax Prior to the Hurricanes

- In January 2016, AES told EPA that Agremax was being sent for disposal to El Coquí Landfill, and was not being shipped to the mainland. In November 2016, protestors blocked the resumption of Agremax/ash truck shipments to the Peñuelas Valley Landfill (PVL). Citizen’s claimed that Agremax/ash dust was being released from PVL and by trucks transporting Agremax to PVL. A CEPD RCRA Inspector inspected the El Coqui Landfill and PVL in May 2016, and confirmed that appropriate operational controls were in place, including fugitive dust controls for transport and disposal of Agremax and other waste materials generated at other facilities in PR.
- According to local newspaper Primera Hora, during the period between July 11 and August 18, 2017, PVL received 12,076.91 tons of coal ash (in its Agremax form) and 2,798.44 tons of liquid waste from other entities. However, the disposal of Agremax at PVL did not result in a significant reduction of the Agremax stockpile at the Facility.
- On July 21, 2017, during a site visit of the Facility, CEPD personnel learned from AES representatives that approximately 425,000 tons of Agremax had been stockpiled on an unlined ground area at the Facility, that shipments of coal combustion residuals to the mainland U.S. had been ongoing but were limited due to the unavailability of barges and shippers; that AES planned to ship 100,000 tons of Agremax off-site by September 2017; and construction of an impervious liner under the Agremax pile originally planned for early 2016, had not commenced, despite liner materials being stored onsite. Because the Power

Plant generates approximately 20,000 tons of CCR per month, the planned shipments would not have reduced significantly the stockpile at the Facility.

- On August 8, 2017, in a meeting held at CEPD, AES representatives informed CEPD that if AES were unable to reduce the stockpile to a manageable size, it may have to shut down the Power Plant. Eventually, the Power Plant ceased operation, as a result of Hurricane Maria in September 2017.

Power Plant Operational Status Post-Hurricanes

- On October 12, 2017, CEPD personnel conducted an assessment of the Power Plant to determine the effects of Hurricane María to the Power Plant. The assessment revealed that the Power Plant was not in operation, alternate power generators were used to power limited areas of the Power Plant, and minor structural damages were evident on certain metal sidewalls and portions of the conveyors. The Agremax stockpile height and volume was very similar when compared to the CEPD site visit on July 21, 2017. The CEPD personnel did not observe any Agremax material outside the stockpile area and the stormwater controls were in place. However, the operation of the water irrigation system for the Agremax stockpile dust control was reduced to 2 out of 9 sprinklers due to limited power availability.
- The Power Plant remained out of operation until the week of February 5, 2018, when the Puerto Rico Electrical Power Authority (“PREPA”) requested AES to produce power. AES began to produce power in Unit #2 at its maximum capacity (254 megawatts/hour) but lowered its power generation to 143 megawatts/hour during the week of February 12, 2018.
- In a recent conversation with AES Environmental Manager, CEPD learned that AES began to produce power in Unit #1 on or about mid-March 2018. Currently, each unit is producing 200 megawatts/hour, for a total of 400 megawatts/hour. The Plant can produce up to 520 megawatts/hour.
- According to local newspaper Periódico La Perla, AES shipped (by barge) approximately 20,000 tons of Agremax to Jacksonville, Florida, on April 6, 2018. The article also mentioned that the same barge was seen at Las Mareas Port between March 11 and 16, 2018, suggesting that another 20,000 tons of Agremax were shipped to continental US. These two shipments did not cause a significant reduction of the Agremax stockpile because AES continue to generate coal combustion materials once it began operations at the Power Plant in February 2018.

CCR RULE COMPLIANCE

- In a December 2016 letter to AES, EPA's Office of Land and Emergency Management (OLEM) confirmed that Agremax is a solid waste, and the Agremax pile is a CCR pile and an existing landfill subject to all applicable requirements of the CCR Rule, including closure. The installation of the planned liner at the Agremax stockpile area would not change this requirement. AES met an EPA November 2016 regulatory deadline by posting closure plans and other documents in its website, and thus to appear to be in compliance with the CCR Rule. Also, AES met an October 2017 CCR rule deadline by establishing a groundwater detection monitoring system, comprised of 5 groundwater monitoring wells (including 2 wells for background data collection).
- On September 13, 2017, Administrator Pruitt signed a letter to the Utility Solid Waste Activities Group and AES Puerto Rico indicating that in response to their petitions, EPA has decided that it is "appropriate and in the public interest" to reconsider the provisions of the CCR Rule addressed in their petitions. However, the letter does not address the merits of any issue raised in the petitions. EPA has not taken any action yet to modify any portion of the CCR rule, including the compliance dates, which means that AES must continue to comply with the CCR rule.

CCR LEGISLATION

- Federal - The Water Infrastructure Improvements Act for the Nation Act was signed into law in December 2016, and contains a separate subtitle on CCR. It establishes a permitting program and gives EPA enforcement authorities under Sections 3007 and 3008 of RCRA. States may submit permit programs to EPA which, once approved, will operate *in lieu of* the CCR final rule. If any state chooses not to submit a permit program, then EPA must, subject to appropriations, implement its own permitting program in that state to achieve compliance with the CCR Rule. At this time, EQB has not yet confirmed whether it intends to develop a CCR permit program. EPA may use Section 3007 and 3008 of RCRA to enforce RCRA's Section 4005(a) -- prohibition on open dumping with respect to CCR units, with limitations applying to units in states with approved CCR permit programs. CASD and DECA are participating in the OLEM CCR workgroup and will remain in coordination with EQB and CEPD on permitting and compliance issues as they arise. In August of 2017, EPA HQs released an Interim Final Guidance document for the development and implementation of state CCR Permit programs. The comment period closed on September 14, 2017.
- Commonwealth - Puerto Rico Law 40, signed into law in July 2017, prohibits the deposit and disposal of *coal ash, fly ash or coal combustion residuals* on all roads, lands, including landfills, and water bodies within Puerto Rico. Law 40 defines *coal ash or coal combustion residuals* as "the materials resulting from coal combustion in power generating plants, including fly ash, bottom ash, boiler slag, and flue gas desulfurization gypsum." Further,

the law prohibits the storage of coal ash or coal combustion residuals within Puerto Rico for a period greater than 180 days from the date of its generation. This storage prohibition and period will not apply to: (1) the controlled storage of coal ash or coal combustion residuals in tanks and silos for the manufacture of cement and concrete, and (2) any other beneficial commercial reuse as established by the relevant state and federal regulatory agencies. In such cases, the storage period shall not exceed one year. Law 40 required EQB to issue regulations to implement such law within ninety days from the date of issuance of such -- approximately by October 4, 2017. EQB has not issued such regulation yet.

- In Comité Pro Salud, Desarrollo y Ambiente de Tallaboa, Inc., et al v. Junta de Calidad Ambiental, et al, Civil No. J PE2017-0289 (Aug. 4, 2017), a Ponce court ruled that Law 40 does not prohibit the deposit and disposal of rock ash or manufactured product Agremax at Peñuelas Valley Landfill and El Coqui Landfill. This decision did not address the composition of Agremax, and was appealed by plaintiff Comité on September 5, 2017, before the Puerto Rico Court of Appeals. On January 12, 2018, the Court of Appeals validated the use of the Agremax, as a daily cover material in landfills and for the solidification of non-hazardous liquid waste. Comité Pro Salud appealed to the P.R. Supreme Court on February 15, 2018 (Case No. CC-2018-0163) and the appeal was denied.

CWA/NPDES

- Administrative Compliance Order – AES complied with the March 2015 CWA Order on Consent executed for violations of the 2015 NPDES Multi-Sector General Permit for Stormwater Discharges from Industrial Activity (MSGP), as confirmed in an August 2016 NPDES inspection. The Order was terminated in February 2017.
- Current Status – On August 3, 2017, CEPD issued AES a Notice of Violation (NOV) concerning non-compliance with the dust control measures and maintenance of storm water runoff control measures required under the MSGP, as observed by EPA in a July 21, 2017 site visit. The NOV required that AES prepare and implement a compliance plan, which must not exceed 60 days. Also, AES was requested to immediately implement dust minimization measures to keep all exposed areas of the Agremax pile wet at all times (day and night hours). In addition, AES was required to submit a copy of the dust control checklist on a weekly basis, including pictures and videos depicting the conditions of the entire Agremax pile. This submittal will allow EPA to monitor the conditions of the Agremax pile and implementation of dust control remotely. On August 25, 2017, AES submitted its response to the EPA August 3, 2017 letter, which is subject to review by the Region 2 AES Enforcement Team composed of lawyers, managers and technical experts from ORC, DECA, and CEPD. On February 15, 2018, CEPD contacted AES, and requested an update on the pending actions addressed in AES's August 25, 2017 letter. In recent days, CEPD and AES had a telephone conversation, and AES submitted an update of the activities it took after the hurricanes. Further, EPA requested, and AES submitted documentation required under the MSGP. CEPD will review and assess AES' compliance in the coming weeks.

EQB ENFORCEMENT ACTIONS

- On September 1, 2017, EQB issued Resolution No. 17-14, as result of Hurricane Irma, warning and projecting hurricane path through the Puerto Rico region. EQB granted 24 hours to AES to enclose and/or contain the coal combustion residuals and/or Agremax stored outdoors at its Facility, and ensure the mechanism to be used to enclose the material was resistant to strong winds and properly anchored, among other measures. This action came after the publication of an aerial video taken by a group of Puerto Rico's Senators that flew over the Facility and PVL, showing a significant amount of CCR stored outdoors in both facilities.
- On September 4, 2017, EQB issued Resolution No. 17-15 concluding that AES had not complied with the provisions of the that required covering or enclosing the CCR and/or Agremax pile, and proposed an administrative penalty of \$25,000. On September 13, 2017, EQB issued Resolution No. 17-20 ordering AES to show cause why a penalty of \$70,000 should not be imposed for its non-compliance with the EQB order.
- On September 17, 2017, after a hurricane watch was issued to Puerto Rico due to Hurricane María, EQB ordered AES again to enclose and/or cover the coal combustion residuals pile located at its Facility. AES replied to the Orders with responses to each of the provisions of the Orders.
- EQB issued Order OA-18-TE-030 on March 15, 2018, requiring AES to submit detailed information and documentation regarding its groundwater monitoring at the Power Plant. AES provided the requested documents in an April 4, 2018 response to EQB.
- Because AES's analysis of its groundwater detection monitoring results determined a statistically significant increase over background, AES must, by regulation, either begin assessment monitoring or show that the contamination came from another source (which they've indicated they are going to evaluate with respect to nearby sites with known past contamination):

COMMUNITY CONCERNS / PROTESTS

- Prior to Hurricanes Irma and María, daily protests by concerned citizens were occurring on the road that enters to PVL and neighboring Ecosystems Landfill in Peñuelas and at the Power Plant in Guayama. CEPD has suggested to the Governor's Office that the landfills operators meet with the community and confer with their technical representative(s) and EQB senior management to open up a dialog to address community concerns about fugitive dust release and other matters.

- Legacy Sites – In 2016, CASD, in consultation with ORC, discussed potential authorities, options, and resources for a soil and groundwater investigation at PR “legacy” sites such as the AES North Well Field that are not covered under the CCR Rule, and the results of these discussions were shared with DESA. Conducting the comprehensive study necessary to properly characterize the subsurface transport of contaminants from the land placement of Agremax/ash requires substantial resources.
- Media Coverage – CEPD Director Guerrero conducted interviews with the press in July and August 2017, and articles on the Agremax (coal combustion residuals) stockpiling and disposal issues were subsequently published in major Puerto Rico newspapers.
- ATSDR – Prior to the hurricanes, ATSDR revealed to EPA that it was considering a request from the public to investigate potential health effects from the alleged release of Agremax at the Peñuelas Valley Landfill, and DECA provided requested documents. We have not subsequently heard from ATSDR.